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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: NREL/96-48

Applicant: Timothy A. Gessert )  
Serial No.: 08/937,721 ✓ ) Group Art: 1741  
Filing Date: September 25, 1997 ) Examiner: S. Mulpuri  
Title: ION-BEAM TREATMENT TO )  
PREPARE SURFACES OF )  
P-CdTe FILMS )



AMENDMENT UNDER 37 CFR §1.115

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

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In reply to the Official Action of May 18, 2000, rejecting the claims in the above-identified patent application, applicant respectfully request reconsideration, based upon the amendments hereinafter set forth.

1. (Amended) A dry process for making a low-resistance electrical contact between a metal and a layer of polycrystalline p-type CdTe surface by ion beam processing comprising:

a) placing a Cds/CdTe device into a chamber and evacuating said chamber to create a vacuum;

b) orientating the polycrystalline p-CdTe side of the Cds/CdTe device to face apparatus capable of generating Ar atoms and ions of preferred energy and directionality;

c) introducing Argon and igniting the area of apparatus to generate Ar atoms and ions of preferred energy and directionality in a manner so that during ion exposure, the source-to-substrate distance is maintained such that it is less than the mean-free path or diffusion length of the Ar atoms and ions at the vacuum pressure; and

d) allowing exposure of the polycrystalline p-CdTe side of the layer to said ion beam for a period less than about 5 minutes prior to forming a contact interface or semiconductor layer.



REMARKS

The Official Action and cited references have been carefully reviewed. The review indicates that the claims as amended, recite patentable subject matter and should be allowed. Reconsideration and allowance are therefore respectfully requested.

Prior to contending with the grounds upon which the rejections are based, it is useful to summarize the essentials of

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